Title:	Reasons to read this book (hint: it'll help your weapons research) Q and A with author highlights Lab's collections, importance of early weapons work
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Reasons to read this book (hint: it'll help your weapons research)
Q and A with author highlights Lab's collections, importance of early weapons work
By National Security Research Center staff

Michael Bernardin's retirement actually looks a little more like a second career. This one, though, as an author of books.

Bernardin retired last year after 35 years as a nuclear physicist that culminated with his role as the Associate Lab Director for Weapons Physics. Since then, he's continued accessing the collections of the National Security Research Center, which is the Lab's classified library.

Bernardin and co-author Alan Carr, who is the Lab's senior historian, authored the approximately 40-page book, *History of the Los Alamos National Security Research Center Collections*.

The goal of the book was twofold: to create a first-ever, comprehensive historical account and also to inform weapons researchers about the NSRC's collections and how they support today's mission work.

What's inside *History of the Los Alamos National Security Research Center Collections*? It's essentially a history of the collections that now reside in the NSRC. The book provides a brief recounting of the history of the Lab from its beginnings to the present day and the classified information that was generated over the decades by the organizations central to nuclear weapons research and development. It is our hope that this and future generations of researchers using the NSRC find this publication to be of value for understanding the various collections and the contributions those collections make to today's mission work.

How did you and Alan Carr piece together the NSRC's history?

It was truly a fascinating process, one that took nine months of meticulous and thorough research.We used three principal categories of information: Written histories on various elements of the collections; interviews with Lab archivists and subject matter experts who worked with specific collections; and indices of various collections, like card catalogs.

Alan, as a LANL historian of nearly 20 years, and I, as a nuclear weapons subject matter expert with 35 years of experience, were able to use our knowledge and experience to integrate these sources of information into a coherent, concise book.

The NSRC's collections are vast and, in total, contain millions of materials in nearly every medium imaginable – do you have a favorite among them?

Probably the Top Secret Collection, which contains reports pertaining to policy, strategy and military deployment of nuclear weapons. Documents include reports on strategic warfare targeting, nuclear warfare post-attack survival and recovery, test ban deliberations, foreign weapons programs, and more.

How did the classified weapons materials that are now housed in the NSRC help you when you worked as a Lab physicist?

During the first 20 years of my Lab career, I was a secondary designer performing research in nuclear weapons and nuclear weapons effects, assessing foreign nuclear weapons, and creating a post-graduate course on the physics of nuclear weapons. I spent a considerable amount of time in various nuclear weapons collections, including the Weapons Data Vault, Technical Reports Collection, J Division Vault and Weapons Program Vault – all now reside in the NSRC. I know from first-hand experience the value of these records to today's national security work at Los Alamos.

What other books have you authored?

The first book I wrote, which was co-authored with Harold Rogers, a co-founder of the TITANS post-graduate curriculum in nuclear weapons, was a classified textbook on the fundamentals of nuclear weapons in 2004. I am currently publishing through the Lab a trilogy entitled the Strategic Arms Competition During the Cold War (1945-1959, 1960-1969 and 1970-1979). The first volume was published in 2018 and the other two will be published later this year.

Which is more difficult: being a writer or a physicist?

Probably being a writer, particularly of historical topics. I spent most of my career solving physics problems through theory and simulation, which is challenging. But with historical writing, attempting to uncover enough pieces to tell the story without first-hand knowledge is quite an endeavor. It takes great patience and perseverance to work through reviewer comments and multiple iterations with an editor. Many scientists grow weary from the effort to publish a technical paper in a peer reviewed journal. I have to say, a book is much tougher.

Both endeavors – weapons writing and weapons physics – are no doubt equally rewarding?
Yes, and now that I'm retired I am able to devote time to combining the two. I have just drafted a sixth book that focuses on a brief history of inter-Lab nuclear weapons design competition, and I am contemplating writing a short book on a particular nuclear weapons effect called high-altitude electromagnetic pulse (EMP). Finally, I am part of a team that is writing an unclassified book on the Lab's invention of the H-bomb.
Being a retired physicist with dulled technical skills from years of management does not have to mean the only option to stay engaged is serving on review committees (which are valuable as well!). There are other opportunities to contribute to national security if one wishes to stay technically active. There is such a wealth of information stored away in the NSRC, and more is added every day. There are so many more stories waiting to be discovered and told.
Visuals:
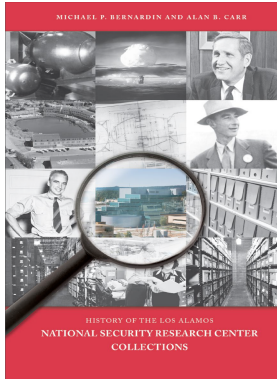
https://nsrc.lanl.gov/assets/books/nsrc-collections/nsrc_collections.pdf

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